



Information for Researchers

Gateway National Recreation Area encourages research, science education, and citizen science. The Jamaica Bay Institute (JBI) was created to facilitate these processes by sharing information about the park's natural and cultural resources. Gateway and the JBI put scientific and scholarly findings to work to protect park resources and aid park management in making scientifically sound decisions.



Topics

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About research at Gateway

What kind of research goes on at Gateway?



More than 750 scientific and scholarly studies have taken place in the park since the early 1970's. On average there are 70- 80 studies with active research permits during the year. These projects are either conducted by Gateway staff and park cooperators (e.g., U.S. Geological Survey, Biological Resources Division, Department of Environmental Conservation), as well as by investigators from other agencies, universities, and other institutions. Appropriate research gathers information while making minimal impacts to park resources. Researchers study everything imaginable from sedimentation migration within the bay, to the population dynamics of the endangered Piping Plover, to the impacts of visitors on the natural resources of Gateway National Recreation Area.

How do I find out results of research in the park?

Website for Research Reports

Each year researchers at all national parks submit an Investigator's Annual Report (IAR) summarizing their findings. Anyone can go online to the National Park Service's Research Permit and Reporting System (RPRS) website and read IARs for Gateway or any other park. You can search the website for IARs by park, investigator, year, or key words. Researchers also use this website to apply for a research and collecting permit. <http://science.nature.nps.gov/research>

Jamaica Bay Resource Library



Final reports (dissertations, publications, books, and articles) resulting from or associated with research and resource studies are housed in the Jamaica Bay Institute Resource Library at Floyd Bennett Field, Headquarters Building 69. This library also includes limited background material relating to natural and cultural resources of Gateway National Recreation area and Jamaica Bay.



Arrangements can be made to use these materials by contacting the Research Administrator at (718) 338- 3338 extension 222. Library users can make use of a ProCite database to find volumes in the library. Searches can be made by author, title, year, or key words. Information linking the report to the research study is also available. A limited number of materials are available electronically.

What kind of research is needed by park managers at Gateway?

Wish-list and High-priority research

Physical Resources

- Analyses of remotely sensed and related spatial data
- Climate trend modeling, with comparisons to regional and global trends
- Detailed geological mapping
- Glacial history
- Impacts of social trail development- erosion and runoff
- Paleontological inventory (timing relationships, locality studies, Cantwell formation bio-stratigraphy)
- Water quality improvements

Biological Resources

- Abundance and distribution of flora and fauna
- Abundance, distribution, and population trends of shorebirds
- Analysis of seasonal and long-term landscape change at a parkwide scale (infer change over large spatial scales) using remotely sensed data and data from sites measured intensively
- Anthropogenic change
- Aquatic invertebrate abundance and distribution, related to climate change
- Behavioral response of obligate hibernators to climate change
- Carbon balance, mycorrhizal activity related to global warming
- Changes in wetlands and wetland species in relation to climate change
- Density of songbird nest predators in campgrounds and in non-campground areas
- Development of animal tracking technology
- Development of improved species survey techniques
- Development of wildlife survey techniques
- Effects of climate change
- Effects of climate change on subsistence species
- Effects of shallow gas exploration and development on park resources
- Exotic species removal and prevention
- Fish species distribution

- Gull behavior near and away from populated areas
- Identifying the factors that influence the abundance of distribution of species (choose one species or guild)
- Insect (choose a species) inventory, distribution, trends
- Landscape level characterization studies
- Non-vascular plant inventory and guide
- Phenology studies
- Presence and level of persistent organic pollutants in migratory raptors (in cooperation with USFWS)
- Shorebird use along roads with different levels of development
- Terrestrial invertebrate inventory, distribution, trends
- Vegetation changes related to climate change

Cultural Resources

- Archaeological surveys
- Oral histories, collection of historical items (photos, journals, etc)

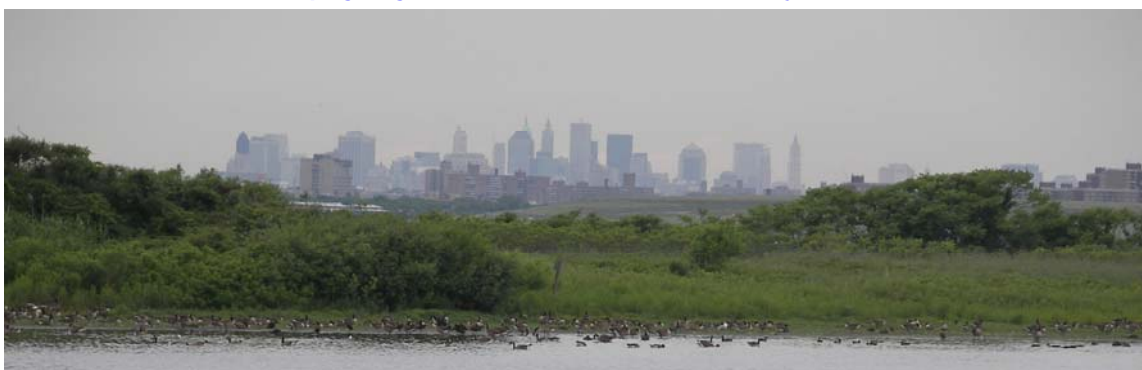
Social Science

- Analysis of additional recreation opportunities
- Attitudinal studies of park management
- Changing patterns of use and visitor experiences
- Road character impacts on visitor experiences
- Studies on what is the "Gateway" experience
- Visitor demographic trends
- Visitor experience and expectation studies
- Visitor impressions of park soundscapes
- Visitor satisfaction of camping

Integrative Work

- Analysis (relationships) of data collected in soil and ecological inventory
- New technologies for resource management
- Relationship of climate with species distribution and abundance
- Relationships among monitoring components
- Synthetic understanding of estuarine systems

For complete details and additional needs please refer to the Research Opportunities Catalog available at www.nps.gov/gate/natureandscience/Jamaica-Bay-Institute-Research.htm



Applying to conduct research or science education studies in Gateway

How do I apply to conduct a research in Gateway?

Any scientist wanting to conduct research in any national park must fill out an application and submit a study plan or proposal. To expedite this process, the National Park Service has developed a website known as the Research Permit and Reporting System (RPRS). Scientists can file an application using the RPRS website <http://science.nature.nps.gov/research> (preferred). The study plan can be uploaded onto the website (preferred), or transmitted to the park by email, hardcopy, or fax. The proposed project will receive the quickest review if both the application and the proposal are filed on the website.

What do I need to include in my study plan?

The study plan must describe the objectives and the rationale for working in Gateway, and provide enough detail about the study locations and methods including logistics so Gateway staff can adequately review the study plan for any administrative or compliance concerns, assess how the proposed project fits in with the overall science goals of the park, and set the conditions of the research permit, if approved and issued. Projects are evaluated for impacts, not scientific merit. Potential researchers discuss their proposals and field sites with an appropriate Gateway staff member (George.Frame@nps.gov or Kim.Tripp@nps.gov). Current information on park file could enhance research studies.

Projects that follow the guidelines listed below are more likely to be approved faster if researchers...

- Follow the guidelines for proposals given on the RPRS website
- Provide maps or coordinates indicating location(s) of proposed study
- Select study sites that avoid wildlife closures or other closed areas
- Provide clear description of methods
- Provide adequate justification for why the project should be conducted in Gateway and not elsewhere
- Include requests for overnight camping in the study plan
- Obtain in advance special permits as required for work with sensitive species (state, federal permits)
- Have considered minimum tool and minimum requirements according to wilderness law for any proposed activities in wilderness
- Plan no permanent structures
- Limit or avoid digging and collecting
- Present idea(s) for educational component of project

When do I need to apply?

Researchers should apply as early as possible (no later than two months prior to the start of the project) to ensure the required paperwork is completed well before the intended start date. According to National Park Service code, all research in the park must operate under a valid research permit. Researchers must have approved permits signed by the Unit Superintendent or designated representative in order to conduct research in Gateway.

Permit applications for most projects submitted two months in advance of the proposed starting date can be assured of being processed without delaying the project start date. However, if the research involves wildlife capture, extensive collections or substantial disturbance, permanent structures, or other issues requiring detailed compliance, allowing more time is advised.

If you can not submit your application (with study plan) at least two months in advance of your proposed start date, we will do our best to process the materials quickly but we cannot guarantee that your proposed research can be reviewed in time to issue a research permit by the date you intended to begin. Again, discussing the project with park staff will increase odds of project approval, decrease time to project approval, and increase project success.

Can I collect specimens in Gateway?



Collecting permits may be granted for limited collecting of objects, whole organisms, or parts of organisms (e.g., leaves). Some animals may be collected and released after they have been measured or tagged. Specimens that are not destroyed remain the property of the National Park Service. Arrangements must be made in advance in order for specimens to leave the park and be stored elsewhere.

What are the obligations of researchers?

Contacting the park with dates of research

Researchers with approved research and collecting permits are required to contact the research administrator or research liaison to confirm the dates they will be in the park.

Safety

To make the research experience safe for researchers, other park visitors, and to ensure the protection of the park resources, researchers must alert the United States Park Police if conducting research within the bay. Please see “Performing Environmentally- Sensitive and Safe Field Research in Gateway National Recreation Area” for additional information.

Investigator’s Annual Report (IAR)

Each researcher reports results in an Investigator Annual Report (IAR) each year the permit is active. Anyone can access and read Investigator Annual Reports (IARs) for projects conducted in Gateway and all national parks by going to the website <http://science.nature.nps.gov/research>. The website allows viewers to sort the Investigator Annual Reports by park, year, or investigator to find those IARs that would be of greatest interest.

Publications or final report

In addition to yearly IARs, researchers supply the park with copies of any publications, dissertations, theses, or reports resulting from the research conducted at Gateway.

Educational component



Researchers should also include an educational component in their projects to help share information with others.

There are unlimited options for the format or approach of the educational component. Examples include giving a program for a general park audience, developing a research- based curriculum for classroom or website use, providing text and photos for a resource bulletin (fact sheet brochure), and creating other media. See “Sharing Your Research” for more ideas.

Resources available to researchers

The Jamaica Bay Institute and Learning Center

The Jamaica Bay Institute, which is located on Floyd Bennett Field in Brooklyn, is able to provide to researchers with approved research permits the following on a space- available basis:

- ♦ transient researcher office space, with access to phone and internet
- ♦ limited longer- term workspace for researchers- in- residence
- ♦ limited laboratory space
- ♦ boat access offered on first- come- first- serve basis

Access will be provided during normal hours of operation of the JBI, and after hours by arrangement.

For further information about the JBI, please contact the JBI Research Coordinator/Director at (718) 338- 3338 extension 222.

Jamaica Bay Resource Library

Upon completion of a research project, final materials are submitted and catalogued in the Jamaica Bay Resources Library to be utilized by students, researchers, park staff and interested public. The Jamaica Bay Resource Library houses over 4,000 publications pertaining to the natural and cultural resources of Jamaica Bay. A computerized catalog makes searching quick and convenient. Most of the collection can be searched via the NPS Online Library Catalog.

Jamaica Bay Institute Research Vessel



This JBI Research Vessel is docked at the Gateway Marina near JBI headquarters. The Research Vessel is a 21 foot Maritime skiff with a 90 horsepower Suzuki four stroke outboard. During the summer months, an MOCC certified boat operator is hired by the JBI to escort researchers to various field sites around the bay. Service is offered to researchers with a valid Gateway NRA scientific permit, on a first come first serve basis and costs \$40/day. Other arrangements may be made for long- term projects.

Conference/presentation space

There are conference rooms available at all districts within the unit. Please call the Research Administrator if you are interested in hosting a conference related to your research or need the rooms for other use.

Computer access



The Researchers Suite provides Internet access, printer, telephones, shelf, drawer and desk space as well as ample room to spread out if necessary. As the computers are government property, researchers that require use of these computers must complete a User Request form (to be initiated into the system by Information Technology staff) and security training. This may take up to three weeks so requests should be mailed or faxed as soon as possible.

Laboratory space



Wet and dry adjoining laboratories are equipped with various materials that make it possible to carry out research there or to prepare specimen or samples for transportation to specialized labs. A large chest freezer, specimen refrigerator, large and small aquariums, vent hood and fire cabinet occupy both rooms.

Break room/Additional meeting space

Off the lab lies the break room, a spacious area divided into a lunch and storage area. One half of the room contains lockers, desks and heavy duty shelving for both personal and equipment storage while the other half of the room contains a small refrigerator, microwave, toaster oven, pantry area and dining table. The break room is furnished with a seating area that can be used to observe laboratory activities or hold informal conferences while lunching.



Field equipment

The Jamaica Bay Institute has equipment available for research purposes. Please contact JBI staff for further information. If necessary, the JBI may be able to purchase equipment to aid in research. This equipment will remain the property of the JBI upon project completion.